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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name

SikaBiresin<sup>®</sup> F160 (B)

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use : Tooling system

### 1.3 Details of the supplier of the safety data sheet

Company name of supplier	:	Sika Limited Watchmead Welwyn Garden City
		Hertfordshire. AL7 1BQ
Telephone	:	+44 (0)1707 394444
Telefax	:	+44 (0)1707 329129
E-mail address of person	:	EHS@uk.sika.com
responsible for the SDS		

### 1.4 Emergency telephone number

National Chemical Emergency Centre (NCEC) 24 Hour Emergency Telephone Number +44 870 190 6777

### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

### Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4 Skin irritation, Category 2 Eye irritation, Category 2 Respiratory sensitisation, Category 1

Skin sensitisation, Category 1 Carcinogenicity, Category 2 Specific target organ toxicity - single exposure, Category 3, Respiratory system Specific target organ toxicity - repeated exposure, Category 2

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



H332: Harmful if inhaled.

H315: Causes skin irritation.

breathing difficulties if inhaled.

H319: Causes serious eye irritation.

H351: Suspected of causing cancer.

H335: May cause respiratory irritation.

longed or repeated exposure if inhaled.

H334: May cause allergy or asthma symptoms or

H373: May cause damage to organs through pro-

H317: May cause an allergic skin reaction.



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Signal word :	Danger		
Hazard statements :	H315 H317 H319 H332 H334 H335 H351 H373	Causes skin irritation. May cause an allergic skin rea Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma s breathing difficulties if inhaled. May cause respiratory irritation Suspected of causing cancer. May cause damage to organs longed or repeated exposure i	symptoms or n. through pro-
Precautionary statements :	<b>Prevention:</b> P201 P260 P264 P280	Obtain special instructions bef Do not breathe mist or vapours Wash skin thoroughly after ha Wear protective gloves/ protection eye protection/ face protection	s. ndling. stive clothing/
	<b>Response:</b> P304 + P340 + P342 + P311	P312 IF INHALED: Remove p air and keep comfortable for b POISON CENTER/ doctor if yo If experiencing respiratory sym POISON CENTER/ doctor.	reathing. Call a ou feel unwell.

### Hazardous components which must be listed on the label:

Diphenylmethanediisocyanate, isomeres and homologues

### **Additional Labelling**

"As from 24 August 2023 adequate training is required before industrial or professional use."

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.



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## **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
Diphenylmethanediisocyanate, isomeres and homologues	9016-87-9 Not Assigned	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 Carc. 2; H351 STOT SE 3; H335 (Respiratory system) STOT RE 2; H373 	>= 60 - < 80

For explanation of abbreviations see section 16.

### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

General advice	: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance	ce.
If inhaled	: Move to fresh air. Consult a physician after significant exposure.	
In case of skin contact	<ul> <li>Take off contaminated clothing and shoes immediatel Wash off with soap and plenty of water.</li> <li>If symptoms persist, call a physician.</li> </ul>	ly.
In case of eye contact	<ul> <li>Immediately flush eye(s) with plenty of water.</li> <li>Remove contact lenses.</li> <li>Keep eye wide open while rinsing.</li> </ul>	



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	If eye irritation persists, consult a spec	ialist.
If swallowed	: Do not induce vomiting without medica Rinse mouth with water. Do not give milk or alcoholic beverage Never give anything by mouth to an un	S.
4.2 Most important symptoms a	and effects, both acute and delayed	
Symptoms	<ul> <li>Asthmatic appearance Cough Respiratory disorder Allergic reactions Excessive lachrymation Erythema Headache Dermatitis See Section 11 for more detailed informand symptoms.</li> </ul>	mation on health effects
Risks	: irritant effects sensitising effects	
	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptom ties if inhaled. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through exposure if inhaled.	
4.3 Indication of any immediate	medical attention and special treatment	needed
Treatment	: Treat symptomatically.	

## **SECTION 5: Firefighting measures**

5.1 Extinguishing media	
Suitable extinguishing media :	In case of fire, use water/water spray/water jet/carbon diox- ide/sand/foam/alcohol resistant foam/chemical powder for extinction.
5.2 Special hazards arising from th	e substance or mixture
Hazardous combustion prod- : ucts	No hazardous combustion products are known



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5.3 Advice for firefighters			
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathin	g apparatus.
Further information	:	Standard procedure for chemical fires.	
SECTION 6: Accidental releas	eı	measures	
6.1 Personal precautions, protect	tiv	e equipment and emergency procedures	
Personal precautions	:	Use personal protective equipment. Deny access to unprotected persons.	
6.2 Environmental precautions			
Environmental precautions	:	Do not flush into surface water or sanitary sewe If the product contaminates rivers and lakes or o respective authorities.	
6.3 Methods and material for con	tai	inment and cleaning up	
Methods for cleaning up	:	Soak up with inert absorbent material (e.g. sand acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.	-

### 6.4 Reference to other sections

For personal protection see section 8.

## **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Advice on safe handling	:	<ul> <li>Avoid formation of aerosol.</li> <li>Avoid exceeding the given occupational exposure limits (see section 8).</li> <li>Do not get in eyes, on skin, or on clothing.</li> <li>For personal protection see section 8.</li> <li>Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.</li> <li>Smoking, eating and drinking should be prohibited in the application area.</li> <li>Provide sufficient air exchange and/or exhaust in work rooms.</li> <li>Follow standard hygiene measures when handling chemical products</li> </ul>
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.



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Hygiene measures	Handle in accordance with good industria practice. When using do not eat or drink. smoke. Wash hands before breaks and a	When using do not
7.2 Conditions for safe storage, in	cluding any incompatibilities	
Requirements for storage areas and containers	Keep container tightly closed in a dry and place. Containers which are opened mus sealed and kept upright to prevent leakag ance with local regulations.	t be carefully re-
Further information on stor- age stability	No decomposition if stored and applied a	s directed.
7.3 Specific end use(s)		
Specific use(s)	Cleaning with aprotic polar solvents must Consult most current local Product Data use.	

### **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters *	Basis *
Diphenylmethanediisocyanate, isomeres and homologues	9016-87-9	TWA	0,02 mg/m3 (NCO)	GB EH40
	Further information: Capable of causing occupational asthma.			
		STEL	0,07 mg/m3 (NCO)	GB EH40

\*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

### **Biological occupational exposure limits**

Substance name	CAS-No.	Control parame- ters	Sampling time	Basis
Diphenylmethanediisocyanate, iso- meres and homologues	9016-87-9	isocyanate- derived diamine (Isocyanates): 1 µmol/mol creati- nine (Urine)	At the end of the period of expo- sure	GB EH40 BAT

### 8.2 Exposure controls

### Engineering measures

Maintain air concentrations below occupational exposure standards. Ensure adequate ventilation, especially in confined areas.

### Personal protective equipment

Eye/face protection : Safety glasses with side-shields conforming to EN166



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Hand protection	Eye wash bottle with pure water Chemical-resistant, impervious gloves co proved standard must be worn at all time chemical products. Reference number E facturer specifications.	es when handling
	Suitable for short time use or protection a Butyl rubber/nitrile rubber gloves (> 0,1 n Contaminated gloves should be removed Suitable for permanent exposure: Viton gloves (0.4 mm), breakthrough time >30 min.	nm)
Skin and body protection	<ul> <li>Protective clothing (e.g. Safety shoes ac long-sleeved working clothing, long trous and protective boots are additionaly reco and stirring work.</li> </ul>	ers). Rubber aprons
Respiratory protection	<ul> <li>In case of inadequate ventilation wear re Respirator selection must be based on k exposure levels, the hazards of the produ- ing limits of the selected respirator. Use a properly fitted NIOSH approved ai respirator complying with an approved st sessment indicates this is necessary. organic vapor filter (Type A) A1: &lt; 1000 ppm; A2: &lt; 5000 ppm; A3: &lt; Ensure adequate ventilation. This can be exhaust extraction or by general ventilati ods for determining inhalation exposure) ticular to the mixing / stirring area. In cas to keep the concentrations under the occ limits then respiration protection measure Ensure adequate ventilation, especially i</li> </ul>	nown or anticipated uct and the safe work- r-purifying or air-fed andard if a risk as- 10000 ppm a achieved by local on. (EN 689 - Meth- . This applies in par- e this is not sufficent cupational exposure es must be used.
Environmental exposure co	ontrols	
General advice	: Do not flush into surface water or sanitar If the product contaminates rivers and la	

respective authorities.

## **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Melting point/range / Freezing : No data available point	
Boiling point/boiling range : 190 °C	



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Flammability (solid, gas)	:	No data available	
Upper/lower flammability or	exp	losive limits	
Upper explosion limit / Up- per flammability limit	:	No data available	
Lower explosion limit / Lower flammability limit	:	No data available	
Flash point	:	> 200 °C Method: closed cup	
Auto-ignition temperature	:	No data available	
Decomposition temperature	:	No data available	
рН	:	Not applicable substance/mixture reacts with water	
Viscosity			
Viscosity, kinematic	:	No data available	
Solubility(ies)			
Water solubility	:	insoluble	
Partition coefficient: n- octanol/water	:	No data available	
Vapour pressure	:	0,01 hPa	
Density	:	1,1 g/cm3 (20 °C)	
Relative vapour density	:	No data available	
Particle characteristics	:	No data available	
9.2 Other information			

No data available

## **SECTION 10: Stability and reactivity**

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

The product is chemically stable.

### 10.3 Possibility of hazardous reactions



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Hazardous reactions	: No hazards to be specially r	mentioned.
<b>0.4 Conditions to avoid</b> Conditions to avoid	: No data available	
<b>0.5 Incompatible materials</b> Materials to avoid	: No data available	
<b>0.6 Hazardous decomposition</b> No decomposition if stored a		
ECTION 11: Toxicological	formation	
1.1 Information on hazard cla	ses as defined in Regulation (E	C) No 1272/2008
<b>Acute toxicity</b> Harmful if inhaled.		
Components:		
DiphenyImethanediisocya Acute oral toxicity	ate, isomeres and homologues: : LD50 Oral (Rat): > 10.000 m	
Acute inhalation toxicity	: LC50: 1,5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Expert judgement Assessment: The componen short term inhalation.	nt/mixture is moderately toxic after
Acute dermal toxicity	: LD50 Dermal (Rabbit): > 9.4	100 mg/kg
Skin corrosion/irritation Causes skin irritation.		
Serious eye damage/eye i Causes serious eye irritation	tation	
Respiratory or skin sensit	ation	
<b>Skin sensitisation</b> May cause an allergic skin r	action.	
Respiratory sensitisation	symptoms or breathing difficulties	s if inhaled.
Germ cell mutagenicity		

Not classified due to lack of data.



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	Carcinogenicity Suspected of causing cancer.
	<b>Reproductive toxicity</b> Not classified due to lack of data.
	STOT - single exposure May cause respiratory irritation.
	<b>STOT - repeated exposure</b> May cause damage to organs through prolonged or repeated exposure if inhaled.
	Aspiration toxicity Not classified due to lack of data.

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### **11.2 Information on other hazards**

#### Endocrine disrupting properties

#### Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### **SECTION 12: Ecological information**

### 12.1 Toxicity

### Components:

### Diphenylmethanediisocyanate, isomeres and homologues:

Toxicity to fish	:	LC50 (Brachydanio rerio (zebrafish)): > 1.000 mg/l Exposure time: 96 h
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): > 1.640 mg/l Exposure time: 72 h

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available



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12.5 Results of PBT and vPvB a	assessment	
Product:		
Assessment	<ul> <li>This substance/mixture contains no co to be either persistent, bioaccumulative very persistent and very bioaccumulati 0.1% or higher</li> </ul>	e and toxic (PBT), or
12.6 Endocrine disrupting prop	erties	
Product:		
Assessment	<ul> <li>The substance/mixture does not contain ered to have endocrine disrupting prop REACH Article 57(f) or Commission De (EU) 2017/2100 or Commission Regulation levels of 0.1% or higher.</li> </ul>	erties according to elegated regulation
12.7 Other adverse effects		
Product:		
Additional ecological infor- mation	: There is no data available for this prod	uct.

-			
	Product		The generation of waste should be avoided or minimized wherever possible.
			Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.
			Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
			Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
			Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
	European Waste Catalogue	:	08 05 01* waste isocyanates
	Contaminated packaging	:	15 01 10* packaging containing residues of or contaminated by dangerous substances



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### **SECTION 14: Transport information**

### 14.1 UN number or ID number

	ADR	:	Not regulated as a dangerous good
	IMDG	:	Not regulated as a dangerous good
	ΙΑΤΑ	:	Not regulated as a dangerous good
14.2	2 UN proper shipping name		
	ADR	:	Not regulated as a dangerous good
	IMDG	:	Not regulated as a dangerous good
	ΙΑΤΑ	:	Not regulated as a dangerous good
14.3 Transport hazard class(es)			
	ADR	:	Not regulated as a dangerous good
	IMDG	:	Not regulated as a dangerous good
	ΙΑΤΑ	:	Not regulated as a dangerous good
14.4	Packing group		
	ADR	:	Not regulated as a dangerous good
	IMDG	:	Not regulated as a dangerous good
	IATA (Cargo)	:	Not regulated as a dangerous good
	IATA (Passenger)	:	Not regulated as a dangerous good

### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

Not applicable

### **14.7 Maritime transport in bulk according to IMO instruments** Not applicable for product as supplied.

### **SECTION 15: Regulatory information**

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture** Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)

: Conditions of restriction for the following entries should be considered: Diphenylmethanediisocyanate, isomeres and homologues (Number on list 56)



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UK REACH Candidate list of subs concern (SVHC) for Authorisation	, ,	Not applicable	
The Persistent Organic Pollutants Regulation (EU) 2019/1021 as an ain)		Not applicable	
International Chemical Weapons Schedules of Toxic Chemicals an	( )	Not applicable	
Regulation (EC) No 1005/2009 or plete the ozone layer	n substances that de- :	Not applicable	
UK REACH List of substances su (Annex XIV)	bject to authorisation :	Not applicable	
GB Export and import of hazardou Informed Consent (PIC) Regulation		Not applicable	
Control of Major Accident Hazard 2015 (COMAH)	s Regulations No	ot applicable	
Volatile organic compounds :	Law on the incentive tax (VOCV) Volatile organic compour no VOC duties	Ũ	
	Directive 2010/75/EU of a emissions (integrated po Volatile organic compour	llution prevention and	control)

If other regulatory information applies that is not already provided elsewhere in the Safety Data Sheet, then it is described in this subsection.

Health, safety and environ-	: Environmental Protection Act 1990 & Subsidiary Regulations
mental regulation/legislation	Health and Safety at Work Act 1974 & Subsidiary Regulations
specific for the substance or	Control of Substances Hazardous to Health Regulations
mixture:	(COSHH)
	May be subject to the Control of Major Accident Hazards
	Regulations (COMAH), and amendments.

### Other regulations:

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to new and expectant mothers at work contained in Regulation 16 to 18) and of the Pregnant Workers Directive 92/85/EEC.

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

### 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.



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### **SECTION 16: Other information**

Full text of H-Statements		
H315		Causes skin irritation.
H317		May cause an allergic skin reaction.
H319	:	Causes serious eye irritation.
H332	:	Harmful if inhaled.
	•	
H334	:	May cause allergy or asthma symptoms or breathing difficul- ties if inhaled.
H335	:	May cause respiratory irritation.
H351	:	Suspected of causing cancer.
H373	:	May cause damage to organs through prolonged or repeated exposure if inhaled.
Full text of other abbreviation	ons	•
Acute Tox.		Acute toxicity
Carc.	:	Carcinogenicity
Eye Irrit.	:	Eye irritation
Resp. Sens.	:	Respiratory sensitisation
Skin Irrit.	:	Skin irritation
	:	
Skin Sens.	•	Skin sensitisation
STOT RE	•	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
GB EH40 BAT	:	UK. Biological monitoring guidance values
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	:	Short-term exposure limit (15-minute reference period)
ADR	:	European Agreement concerning the International Carriage of
		Dangerous Goods by Road
CAS	:	Chemical Abstracts Service
DNEL	:	Derived no-effect level
EC50	:	Half maximal effective concentration
GHS	:	Globally Harmonized System
IATA	:	International Air Transport Association
IMDG	:	International Maritime Code for Dangerous Goods
LD50	:	Median lethal dosis (the amount of a material, given all at
		once, which causes the death of 50% (one half) of a group of
		test animals)
LC50		Median lethal concentration (concentrations of the chemical in
2000	•	air that kills 50% of the test animals during the observation
		period)
MARPOL		International Convention for the Prevention of Pollution from
MARFOL	•	
		Ships, 1973 as modified by the Protocol of 1978
OEL	:	Occupational Exposure Limit
PBT	:	Persistent, bioaccumulative and toxic
PNEC	:	Predicted no effect concentration
REACH	:	Regulation (EC) No 1907/2006 of the European Parliament
		and of the Council of 18 December 2006 concerning the Reg-
		istration, Evaluation, Authorisation and Restriction of Chemi-



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SVHC vPvB	cals (REACH), establish : Substances of Very Hig : Very persistent and very		Is Agency
Further information			
Classification of the mixture	e:	Classification procedu	re:
Acute Tox. 4	H332	Calculation method	
Skin Irrit. 2	H315	Calculation method	
Eye Irrit. 2	H319	Calculation method	
Resp. Sens. 1	H334	Calculation method	
Skin Sens. 1	H317	Calculation method	
Carc. 2	H351	Calculation method	
STOT SE 3	H335	Calculation method	
STOT RE 2	H373	Calculation method	

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

Changes as compared to previous version !

GB / EN